



**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re application of

Anthony J. KONECNI ET AL.

Serial No. 08/988,686 (TI-22166)

Filed December 11, 1997

For: PLASMA PRE-TREATMENT TO REMOVE RESIDUES FORMED IN A VIA

Art Unit 2823

Examiner M. Wilczewski

Customer No. 23494

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REQUEST FOR REHEARING

Request is hereby made for rehearing and reconsideration of the Decision dated February 24, 2009.


As stated throughout the papers filed by appellants, all of the claims on appeal require the step of "providing a halogen-free gas comprised of hydrogen incorporated within a plasma into said opening in said insulating layer...to increase the reactive surface of any residual material on said exposed portion and at least partially remove said residual material". This feature is clearly not shown or suggested by Masanori.

The Decision states in the third paragraph on page 4 under FINDINGS OF FACT that "Masanori discloses a method of removing a degenerated layer wherein a step involving

dry etching cleaning is applied to a lower aluminum wiring layer exposed via holes in an insulating layer using a mixed gas comprising a rare gas and a hydrogen gas (Masanori 3, last para., 4, fourth para. of the English translation)". It should be noted in the fourth paragraph on page 4 of the English translation that, along with the hydrogen and argon, it is stated that "like in the past, and HF and water are created as the fluorine and the oxygen contained in the hydrogen gas and degenerated layer 6 react with each other". It follows that the etching of Masanori clearly includes a halogen, fluorine being one of the halogen elements. This fact is not discussed or explained away in the Decision. It follows that the requirements of the claims on appeal are not found in Masanori and also that the benefits derived from the subject invention cannot be obtained by utilizing the method of Masanori since a halogen element is present in the form of fluorine.

For the above reason, rehearing and reconsideration of the Decision is requested.

Respectfully submitted,


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